Castlemaine Naturalist

July '99
Vol 21.6 #257

Southern Boobooks or Problems with Identification!

After almost seven years of collecting pellets at weekly intervals (March - November) from beneath the perch of the Botanic Gardens owls, some research has begun on analysis of same. Therefore it was necessary to establish beyond doubt that the birds were Southern Boobooks. Over the years it had been assumed that they were, but no one had been found to commit themselves to a definite identification. On one occasion an ornithologist friend with considerable experience of Barking Owl surveys for DNRE visited the site with me, and, after observing the birds at length through binoculars and playing taped calls of both Boobook and Barking Owls without any response, announced that he could not give a definite opinion. It seems that size and colour variations of both species occur all over the state, and that the "spectacled look" of the Boobook, or even the "golden eyes" of the Barking Owls cannot be relied upon for identification.

A visit to Healsville Sanctuary only added to the confusion. After studying both owls at close quarters in adjacent enclosures it seemed that the Barking Owl was closer in colour and size to our gardens owls than the slender little Boobook nearby. At the same time. it was completely different from the stuffed Barking Owl I had seen on several occasions in Parks Victoria office at Cann River.

So I was instructed to look for feathers, and when the birds returned in March this year I found a fresh and clean one which was obviously an owl feather. It was posted off to the Australian Museum in Sydney for DNA tests which revealed that it did indeed belong to a Southern Boobook. At present the pellets are being examined for remains of other birds - there were occasional Blackbird beaks found under the perch - and eventually they will be examined for the bones of bats and other small mammals.

Shirley Parnaby.

FLAT-LEAF BUSH-PEA SURVEY, NUGGETTY, MALDON

Method. A survey of the Flat-leaf Bush-pea (*Pultenaea platyphylla)* was carried out on the granite area of Nuggetty Range Historic Area by members of the Castlemaine Field Naturalists Club on June 2, 9 and 23 , 1999. Teams of 2 or 3 made a search of the area, noting the height and width of each plant, the habitat, the number of branches, and evidence of browsing. A chalk mark was made on a nearby rock to prevent double-counting.

Mapping by Ian Johnson was invaluable during the survey. Valuable assistance was also given by David Averay of Parks Victoria.

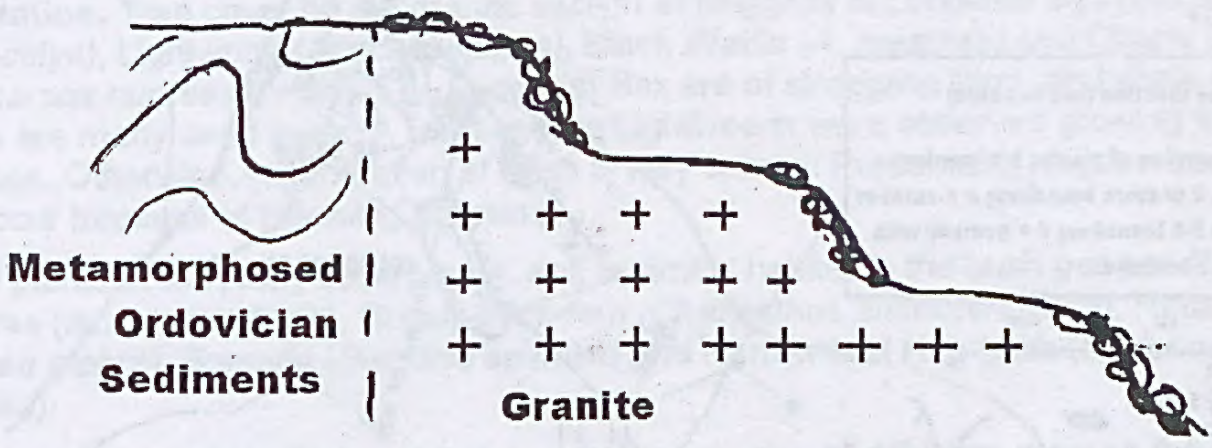
Species Count. 700 specimens were counted. The height ranged from one centimetre to 1.9 metres.

Height (cm)	Number of specimens	Height (cm)	Number of specimens	Height (cm)	Number of specimens
1-10	128	71-80	25	141-150	4
11-20	155	81-90	23	151-160	1
21-30	129	91-100	29	161-170	2
31-40	57	101-110	13	171-180	0
41-50	39	111-120	11	181-190	1
51-60	39	121-130	17		
61-70	27	131-140	11		

The median height was 25cm and the median width 16cm. Because of the position in which many plants grow, it was not practicable to measure stem diameters.

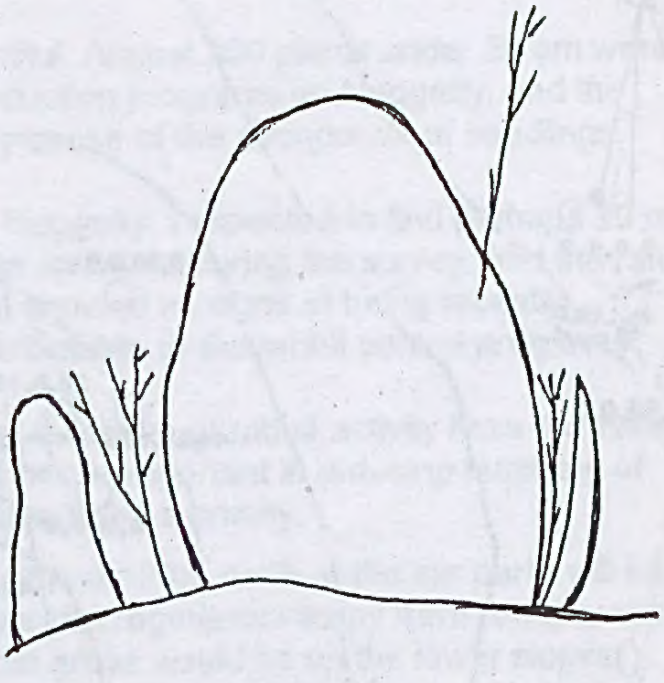
Topography and Bush-pea Locations. The highest point of Nuggetty (Mt Moorul) is 2.5km NNE of Maldon Post Office. The elevation ranges from 456m at Mt Moorul to 330m near the Maldon Cemetery. The land falls to the west in a series of steep drops. The drops are covered with rounded granite tors, smaller boulders and angular rocks. The land also drops steeply to the south to Back Cemetery Road. Bush-peas were not recorded on the south face. There is a more gentle slope to the north, where many sections of the slope are covered with masses of granite boulders. Bush-peas are most common on the western slopes.

The bush-peas grow amongst or at the edge of granite rocks. They are rare or absent on the flat areas away from rocky areas. The absence of bush-peas from such areas may indcate a requirement for successful growth, or be the result of competition from annual weed species, or because of browsing pressure.



No bush-peas were recorded from the metamorphosed Ordovician sediments on the east.

Habitat and Browsing Pressure. Bush-peas are typically found sheltered by granite rocks. They may be in gaps between rocks, growing from cracks on large tors, or in clefts. Some plants are growing against tree trunks, and others are sheltered by fallen timber, or by a tangle of vegetation e.g. by Sword Sedge. Sometimes the bush-peas have an espalier-like growth against large boulders. The sketch shows some typical positions in which they grow.



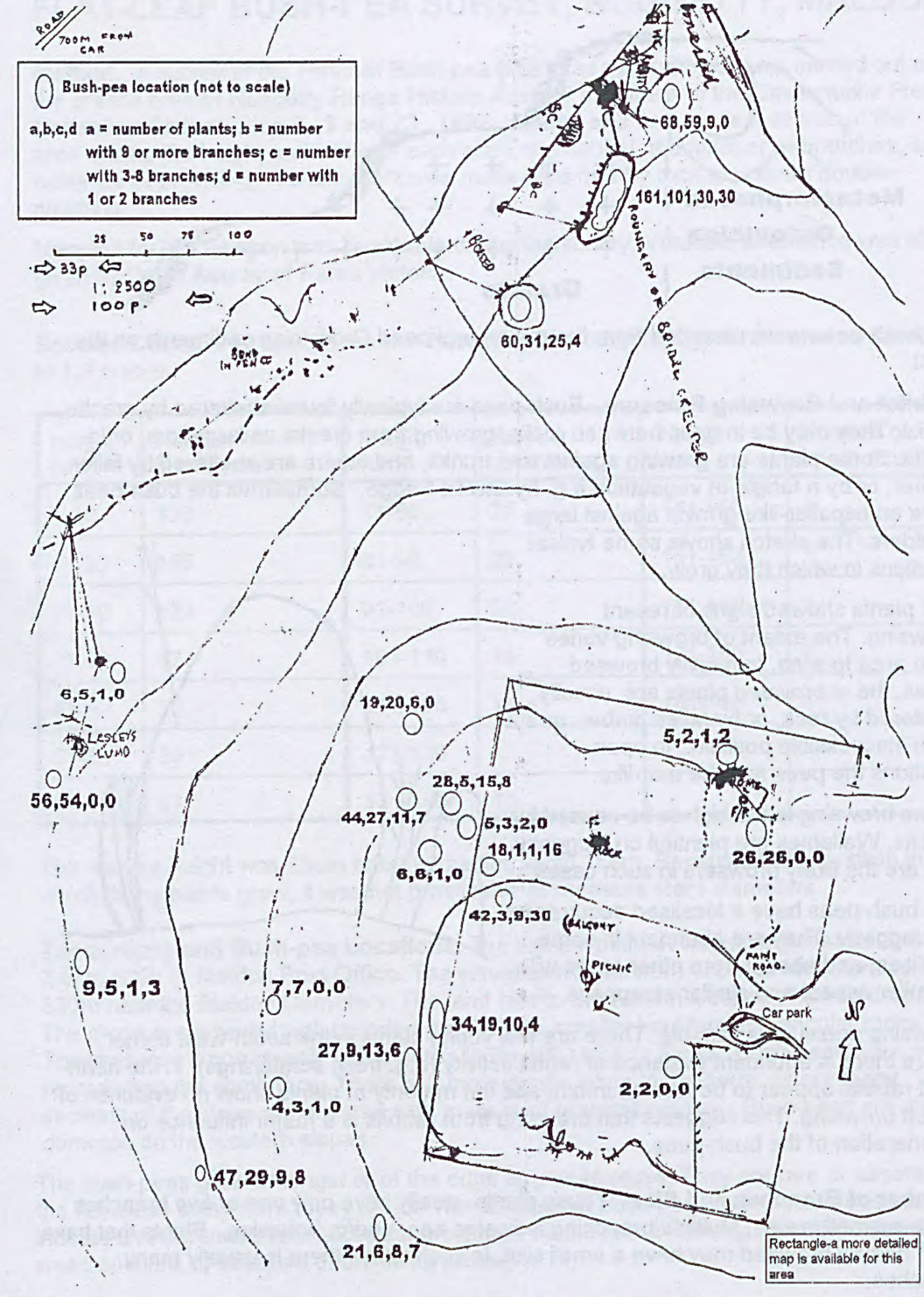
342 plants showed signs of recent browsing. The extent of browsing varies from area to area. In heavily browsed areas, the unbrowsed plants are usually sheltered by rock, or by fallen timber, or are in an inaccessible position. In open positions the peas may be mat-like.

Some browsing is too high to be caused by rabbits. Wallabies are plentiful on Nuggetty, and are the likely browsers in such cases.

The bush-peas have a localised occurrence on Nuggetty. They are abundant in some localities, and absent from other areas with a similar aspect and similar steepness.

Browsing pressure is variable. There are few young plants in the south-west corner, where there is abundant evidence of rabbit activity (e.g. fresh scratchings). In the north-west rabbits appear to be less abundant and the majority of plants show no evidence of recent browsing. This suggests that browsing from rabbits is a major influence on regeneration of the bush-peas.

Number of Branches and Size. Young plants usually have only one or two branches and are small in size. Multiple branching indicates age, and/or browsing. Plants that have been heavily browsed may have a small size. In such cases there is usually many branches.


ROAD
700M FROM CAR
Bush-pea location (not to scale)
a,b,c,d a = number of plants; b = number with 9 or more branches; c = number with 3-8 branches; d = number with 1 or 2 branches
25 50 75 100
33p
1: 2500
100p
68,59,9,0
161,101,30,30
60,31,25,4
6,5,1,0
56,54,0,0
19,20,6,0
5,2,1,2
28,5,15,8
44,27,11,7
5,3,2,0
18,1,1,16
6,6,1,0
26,26,0,0
42,3,8,30
9,5,1,3
7,7,0,0
34,19,10,4
27,9,13,6
2,2,0,0
4,3,1,0
47,29,9,8
21,6,8,7
Car park
Rectangle-a more detailed map is available for this area

Vegetation. Tree cover on the granite section of Nuggetty is Long-leaf Box (*Eucalyptus goniocalyx)*, Lightwood (*Acacia implexa)*, Black Wattle (*A. mearnsii)* and Cherry Ballart (*Exocarpos cupressiformis)*. The Long-leaf Box are of straggling form, and show stress. There are many dead trees. A few seedling Lightwoods were observed growing from crevices. Otherwise, regeneration of trees is very sparse. Presumably, regeneration does not occur because of browsing pressure.

Other plants of the rocky escarpment, and in similar habitat to the bush-pea are Rock Isotome (*Isotoma axillaris*), Green Rock-fern *(Cheilanthes austrotenuifolia*), Rock Correa (*Correa glabra*), Bursaria (*Bursaria spinosa)* and Narrow-leaf Hop-bush (*Dodonaea viscosa*).

Annual weeds, including grass species, erodium species and thistles grow on the flats between the rocky slopes.

Weed Species. Wheel Pear (*Opuntia robusta*) is scattered over the area. A control program has reduced the population. Boneseed (*Chrysanthemoides monilifera)* is moderately common, with large mature shrubs and seedlings. There are isolated plants of Smilax (*Asparagus asparagoides)* in the south, and some dense patches on the northern slopes.

Seedling plants Seedling bush-peas are plentiful. Almost 300 plants under 20 cm were recorded. There have been intensive rabbit reduction programs on Nuggetty, and the reduction in the rabbit population and is a likely cause of the abundance of seedlings.

Conclusions. As a result of previous visits to Nuggetty, I expected to find perhaps 20 or 30 plants. I was amazed at the number of peas recorded during the survey, and the range of ages present, and the number of plants that showed no signs of being recently browsed. These welcome findings must be attributable to the rabbit control programs.

(a) Rabbit control. Areas in which there is most evidence of rabbit activity have the fewest seedlings, which indicates that browsed by rabbits is important in reducing numbers of bush-peas. Hence, rabbit control should continue to be a priority.

(b) Fencing. Fencing of a portion of Nuggetty (about 120m north of the car park) will be worthwhile, and will indicate whether bush-peas can regenerate away from rocky areas. An additional fenced area is desirable. Suitable areas would be on the lower slopes, either east of the cemetery or between the two gullies.

(c) Weeds. Removal of established Bonseed is desirable. Regular surveys for boneseed seedlings is also desirable. Smilax is a major threat, and control methods are urgently needed to prevent further spread. Dense populations are already established on the eastern side of the Nuggetty Range.

(e) Long-term outlook. Although there is a fairly large population of bush-pea on Nuggetty, it is restricted in its habitat and must be considered an endangered species. Formal protection is therefore desirable.

E. Perkins.

REPORT

Wombat Forest Field Day

CFNC was invited to send one representative to join 100 others at a Wombat Forest Field Day on May 22 '99. The day was arranged by DNRE in association with the Wombat Forest Society (WFS) and the local timber industry. It was a rainy, cold morning at Bullarto Hall where we gathered for an intensive 3 hour information session. There were 17 speakers covering topics such as forest planning, sustainable saw-log yield and the RFA process.

The organisers did a great job in bringing together all the guest speakers, keeping them to a strict time allocation and fielding questions from the floor after each topic. People attending had very strong and differing views on how our forests should be managed, so it is a credit to everyone that they were listening to, and respectful of, each other.

After lunch we were split up into 4 busloads. Each bus stopped at 4 forest sites to look at and discuss the shelterwood silvicultural system, biodiversity and harvesting planning, soil and water protection, and regeneration. Unfortunately some of the discussions were held on the buses due to bad weather.

It is very difficult to summarize a whole day of observations, but I think the WFS and local timber industry have good reason to be concerned that the current rates of harvesting may not be sustainable and that the silvicultural option of "shelterwood" (employed by DNRE here since 1974) may not be the best way to manage these forests. We certainly saw coupes that had regeneration burns that had been too hot and had caused long term damage to the overwood trees (retained for approx. 10 years to grow on for premium saw logs). I was surprised at the proximity of the logging coupes to each other - this one was felled last year, across the track the year before, and so on all around.

It seems a lot more research and dissemination of findings is needed in the following areas:

* the impact of forestry on water yield and quality, including mineral springs, in the Wombat Forest,
* the impact of overwood on regeneration,
* whether regeneration burns are effective or whether there are better alternatives,
* testing and revising the sustainable sawlog yield model.

Anyone interested in the RFA process for the Wombat Forest could ring the WFS on 5348 1141 or DNRE Daylesford.

Frances Cincotta

Observations

* One Yellow-billed Spoonbill seen on the edge of the house dam on "Leanganook", Mount Alexander, on May 24. Only one spoonbill has been seen on the property before, in Dec. '97. Margaret Hunter
* A very nice specimen of Tall Greenhood, *Pterostylis longifolia*, was

found at the side of the track during the walk in the Unknown Miners Grave block on Sat. June 12. Rita Mills.

* Chris Morris reported seeing a flock of about 100 Yellow-tailed Black Cockatoos at Creswick.

* Frances Cincotta reported finding a Marbled Gecko while shifting timber at her workplace. They also found a bat sheltering in the timber rather than using a nesting box nearby.

* On 19/6, a Western Gerygone was seen displaying on the ridgetop at the north end of Youngmans' track, Wattle Flat bush. Rita Mills.

* Dianne Thompson reports that she has had Yellow-tufted Honeyeaters in her garden at Barkers Creek for the first time and the Golden Whistler is back again after 2 years. It was with a mixed flock.

* Also at Barkers Creek, this time at Howard Tozer's - seven New Holland Honeyeaters.

* Maureen Dredge was on the way home from the last meeting when she was astonished by the sight of a Brush-tailed Possum confidently crossing the road overhead via the telephone wire.

Gower School Birds

Sunday 6/6/99, 2.05pm to 6pm

Australian Raven
Magpie
Willie Wagtail
Brown-headed Honeyeater
Brown Thornbill
Buff-rumped Thornbill
Yellow Thornbill
Grey Fantail

Birdwatching was very difficult due to motor-bike riders in the bush to the left of Gower Road - probably from the adjacent property. Very noisy!

Phillip West

FROM THE COMMITTEE

Long Swamp Outing on August 14.

We will be meeting with the Maryborough Field Nats with the general purpose of familiarising ourselves with the wetland, with a view to making a flora and fauna survey later on. We would then be in a position to advise on any future revegetation or management program for the protection of the swamp with the view to it returning to a Brolga breeding ground, with the possibility of an application for Natural Heritage Funding. It will be also the opportunity for most of us to visit a completely new area.

Adopt a Highway.

The Club is adopting the highway between Sawmill Road on McKenzies Hill to the Castlemaine Golf Club.

We have been provided with gloves, red safetly vests, and "workmen" signs, and have been provided with a list of regulations. We will do a litter collection and assessment early in August after the Adopt-a-Highway signs have been erected.

C.F.N.C. PROGRAMME

General Meetings are held in the Uniting Church (UCA) hall, at 8.00 pm on the second Friday of each month, except January. Entrances to the car parks are beside the Art Gallery and beside the Church building in Lyttleton Street.
Excursions leave promptly at times stated, usually on the Saturday after the general meeting. There are NO excursions on TOTAL FIRE BAN days.
Business Meetings are held at 38 Campbell Street on the 4th Thursday of each month, except December, at 7.30pm. All members are invited to attend.
VISITORS ALWAYS WELCOME TO CLUB MEETINGS AND EXCURSIONS

* *

Fri. July 9 **Coliban Water** Speaker is Greg Peters of North Central Management Authority. Talk will include slides. UCA hall, 8pm.

Sat. July 10 **Mopoke Gully, Yapeen.** Leave 13 Mostyn St at 1.30pm. Leader is M. Badminton.

Fri. Aug. 13 **The Overland Track Relived** An evening of slides, photos and narrative with the walkers. UCA hall, 8pm

Sat. Aug 14 **Long Swamp** Joint excursion with Maryborough FNC. Leave 13 Mostyn St. at 1.30pm sharp, or meet at the culvert on the west end of the swamp on the Clunes Road at 2pm. Take binocs, afternoon tea, etc.

Fri. 27 – sun 29 Aug. **Club Spring Campout at Kara Kara.** Camp at Teddington Res. near Stuart Mill. The camp has toilets, water and fireplace/BBQs. **Day trip** for non-campers on Sat. 28, leaving 27 Doveton St. at 10 am.

Sun. Sept 5 **Fryerstown area** joint excursion with Ballarat FNC. Leader Norma Dickerson, GDT Association member. Details later.

Fri. Sept. 10. **Microscopy.**, Peter Sansom and Ern Perkins. UCA hall. 8pm

Sat. Sept 11 **Terrick Terrick.** All day excursion. Leave 27 Doveton St at 9.30 am. Take lunch, etc. Don't forget the binocs!

Wed. – Sun., Sept 15 – 19. **VFNCA Campout at Mildura.** Main program will be at the weekend; the extended program is for early arrivals. Preliminary information on p. 7, CN256.

Fri. Oct. 8 **Birds and Words from History and Literature** Speaker is Peter Allan of Rochester. UCA hall, 8pm

Sat. Oct. 9 **Kamarooka Forest.** Peter Allan will lead to a good place for bird nests in the forest. All day outing. We will be combining with Echuca BOC, meeting at 10.30am. Watch for details at a later date.

Fri. Nov. 12 **African Parks** John Turnbull. UCA hall, 8pm.

* *

Committee; M. Dredge (President) Ph 5470 6474, E. Perkins (V.P. and Grievance Officer), B. Maund (Sec.)Ph 5472 4354, M. Badminton (Treas.), R. Mills (N/L Ed. and P.O.), G. Broadway, J. Turnbull, M. Oliver, C. Morris, K. Turner, Z. Thomas.
Subscriptions - Ordinary membership: Single $22, Family $30
Pensioner/student: Single $18, Family $24. Supporting : $31
The Subscription now covers postage of the 'Castlemaine Naturalist'.
Castlemaine Field Naturalists Club Inc.
P.O. Box 324, Castlemaine. 3450.
Incorporation Nº A3010